IV. CLAIMS

1. (Currently Amended) A rake receiver comprising:

impulse response measurement means ~~(22)~~ and path allocation means ~~(23)~~ for allocating paths to rake fingers ~~(21a, 21b, 21c, 21d)~~ in dependence on the output of the impulse response measurement means ~~(22)~~, ~~characterised in that~~

wherein the path allocating means ~~(23)~~ is configured to compare the ~~magnitutes~~magnitudes of pairs of peaks, represented in the output of the impulse response measurement means ~~(23)~~, and ~~ignore the lesser member of a pair~~ remove the peaks of a current pair have a lower magnitude from a set of peaks output by the impulse response measurement means for the allocation of paths to the rake fingers ~~(21a, 21b, 21c, 21d)~~,

wherein if the magnitudes of the pair of peaks differ from a predetermined value calculated ~~in a predetermined manner so as~~ to exclude spurious paths, the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape expected by the receiver are used for the allocation of the paths to the rake fingers.

2. (Original) A rake receiver according to claim 1, wherein said predetermined manner comprises the magnitude of their ratio being within a predetermined range.

3. (Original) A rake receiver according to claim 2, wherein said predetermined manner comprises the magnitude of the results of their ratio less a reference value being less than a threshold value.

4. (Original) A rake receiver according to claim 3, wherein the reference value corresponds to the theoretical lobe ratio increased by an amount attributable to the uncertainty introduced by noise.

5. (Original) A rake receiver according to claim 4, wherein said reference value comprises half the sum of the upper and lower bounds of a confidence interval in the probability density for the lobe ratio, the confidence interval being not less than 90% and preferably about 95%.

6. (Original) A rake receiver according to claim 5, wherein said threshold value is half the width of said confidence interval.

7. (Original) A rake receiver according to claim 1, wherein said pulse shape is a raised cosine.

8. (Currently Amended) A rake receiver according to claim 1, wherein said predetermined ~~manner~~value comprises meeting the criterion:-

$$\left| \frac{M_{p1}}{M_{p2}} - R \right| < I$$

where M_{p1} and M_{p2} are the magnitudes of the peaks of a pair, R is a reference ratio for a main lobe and a side lobe and I is a confidence factor.

9. (Original) A rake receiver according to claim 8, wherein R is approximately 0.175, preferably 0.1746, and I is approximately 0.065, preferably 0.0643.

10. (Previously Presented) A mobile phone network receiver including a receiver according to claim 1.

11. (Currently Amended) A rake receiver for receiving CDMA signals, the receiver comprising a baseband signal processor configured:

to implement a plurality of rake fingers,

to perform impulse response measurement, and

to perform path allocation for allocating paths to rake fingers in dependence on the result impulse response measurement,

wherein said path allocation comprises:

comparing the magnitudes of pairs of peaks, identified by said impulse response measurement, and

ignoring the lesser member of a pair of peaks for the allocation of paths to rake fingers, wherein if the magnitudes of the peaks of said pair differ in a predetermined manner, so as to exclude spurious paths, the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape expected by the receiver are used for path allocation to the rake fingers.

12. (Currently Amended) A rake receiver according to claim 11, wherein said predetermined manner comprises the magnitude of ~~their~~a ratio of the pairs amplitude being within a predetermined range.

13. (Currently Amended) A rake receiver according to claim 12, wherein said predetermined manner comprises the magnitude of the result of their ratio of the pairs amplitudes less a reference value being less than a threshold value.

14. (Original) A rake receiver according to claim 13, wherein the reference value corresponds to the theoretical lobe ratio increased by an amount attributable to the uncertainty introduced by noise.

15. (Original) A rake receiver according to claim 14, wherein said reference value comprises half the sum of the upper and lower bounds of a confidence interval in the probability density for the lobe ratio, the confidence interval being not less than 90% and preferably about 95%.

16. (Original) A rake receiver according to claim 15, wherein said threshold value is half the width of said confidence interval.

17. (Original) A rake receiver according to claim 11, wherein said pulse shape is a raised cosine.

18. (Original) A rake receiver according to claim 11, wherein said predetermined manner comprises meeting the criterion:-

$$\left| \frac{M_{p1}}{M_{p2}} - R \right| < I$$

where M_{p1} and M_{p2} are the magnitudes of the peaks of a pair, R is a reference ratio for a main lobe and a side lobe and I is a confidence factor.

19. (Original) A rake receiver according to claim 18, wherein R is approximately 0.175, preferably 0.1746, and I is approximately 0.065, preferably 0.0643.

20. (Currently Amended) A mobile phone network receiver including a receiver according to claim 11.